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ABSTRACT

Prepared as part of the Bureau of Labor Statistics' periodic reassessment of its projections of the future growth trends of the various sectors of the American economy, new labor force projections to 1990 are presented based on trends in labor force participation as observed through 1975 and on the most recent population projections of the U.S. Census Bureau. Major points of emphasis are the following: (1) The U.S. work force, which has been growing at unprecedented rates since World War II, is expected to grow more slowly during the next 15 years. (2) Projections developed by the Bureau of Labor Statistics (BLS) show that the labor force should grow at an annual rate of 1.9% in the latter half of the 1970's and only 1.1% a year during the 1980's, compared with a rate of increase of 2.3% during the first half of the 1970's. (3) Behind this slowdown is a sharp drop in the birth rate of the 1960's, which means there will be fewer youths reaching working age in the 1980's. The authors discuss specific 1975-1990 labor force participation projections of women, men, youth (16-24), prime age individuals (25-54), and older age persons (55 and over); compare present with earlier BLS projections published in 1973; explain methods of driving projections and underlying assumptions; and suggest alternative projections based on two different fertility assumptions. A supplementary table is appended which shows noninstitutional population, total labor force, and labor force participation rates by age and sex, actual for 1970 and 1975 and projected for 1980, 1985, and 1990. (EM)

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New Labor Force Projections to 1990

Special Labor
Force Report 197

U.S. Department of Labor
Bureau of Labor Statistics

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New labor force projections to 1990

Special Labor Force Report indicates the work force will grow more slowly from 1975 to 1990 than in recent years, largely because there will be a smaller number of youths reaching working age

HOWARD N FULLERTON, JR., AND
PAUL O. FLAIM

The U.S. work force, which has been growing at unprecedented rates since World War II, is expected to grow more slowly during the next 15 years. Projections developed by the Bureau of Labor Statistics show that the labor force should grow at an annual rate of 1.9 percent in the latter half of the 1970's, and only 1.1 percent a year during the 1980's, compared with a rate of increase of 2.3 percent during the first half of the 1970's. Behind this slowdown is a sharp drop in the birth rate of the 1960's, which means there will be fewer youths reaching working age in the 1980's.

In absolute terms, the civilian labor force is estimated to expand by 9.1 million in the latter half of the 1970's, reaching 101.7 million by 1980. This increase will complete the absorption into the labor force of persons born during the postwar "baby boom." The labor force is projected to rise to 108.6 million in 1985, and to 113.8 million in 1990.

Labor force participation among women has been increasing rapidly for many years, and this increase is projected to continue, although at a lower rate, through 1990 (tables 1 and 2). The number of women in the labor force, 37.0 million in 1975, is projected to rise by 11.6 million by 1990, an increase of 1.8 percent per year. This represents a slightly slower rate of growth than experienced over the early 1970's, when the female labor force grew 3.2 percent a year. The main factor behind the projected slowdown is a drop after 1980 in the number of women in the ages at which people enter the labor force.

Howard N Fullerton, Jr., is a labor economist in the Division of Labor Force Studies, Bureau of Labor Statistics, and Paul O. Flaim is Division Chief. Paul M. Ryscavage, an economist in the Division, contributed significantly to the preparation of this article. An earlier version of the article was presented at the annual meeting of the American Statistical Association held in Boston in August 1976.

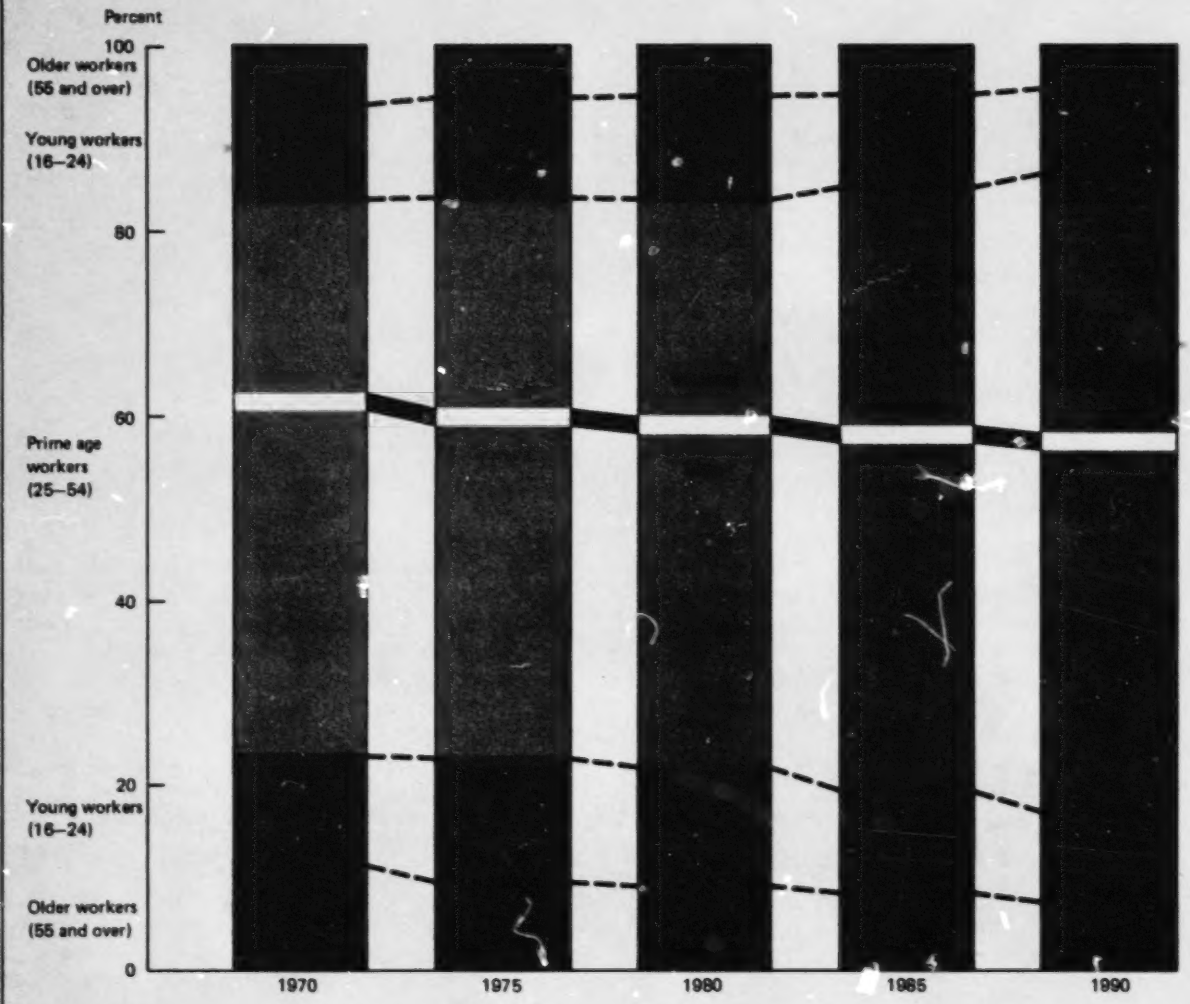
Updating of projections

These new labor force projections were prepared as part of the Bureau of Labor Statistics' periodic reassessment of its projections of the future growth trends of the various sectors of the American economy. The estimates are based on the trends in labor force participation as observed through 1975 and on the most recent projections of the population, which were published by the Bureau of the Census in 1975. (See *Current Population Reports*, Series P-25, No. 601.) These labor force projections are somewhat higher than those published in 1973.

The projections in this article differ slightly from the projections underlying the articles by Thomas J. Mooney and John H. Tschetter and by Max L. Carey which appeared in the November 1976 issue of the *Monthly Labor Review*.

Reprinted from December 1976
Monthly Labor Review
With supplementary table

Chart 1. Distribution of civilian labor force, by age and sex, actual 1970 and 1975, and projected 1980, 1985, and 1990



Although the labor force participation rate of men is expected to continue its gradual historical decline over the same period, the number of men in the civilian labor force, at 55.6 million in 1975, is still expected to grow by 9.6 million between 1975 and 1990, or by 1.1 percent a year (table 1 and chart 1). Despite the slower rate of growth for men than for women, men are still expected to comprise 57 percent of the labor force in 1990.

In terms of its age composition, civilian labor force growth between 1975 and 1990 will be heavily concentrated in the central age groups. The following tabulation shows the number of persons (in thousands) actually in the labor force in 1975 and projected to 1990. As shown, the number of persons age 16–24 in the labor force is actually expected to decline in size by 1990, and the older labor force (age 55 and over) is projected to be only slightly higher in 1990 than in 1975.

Age group	*Actual* 1975	*Projected* 1980	1985	1990
16–24 years	22,266	24,266	23,067	20,952
25–54 years	56,182	62,497	70,616	78,567
55 years and over	14,165	14,910	14,919	14,320

These labor force projections were made essen-

Table 1. Civilian noninstitutional population, labor force, and labor force participation rate by age and sex, actual 1970 and 1975, and projected 1980, 1985, and 1990

[Numbers in thousands]

Sex and age group	Civilian noninstitutional population, July 1					Civilian labor force, annual averages					Civilian labor force participation rates, annual averages (percent of population in labor force)				
	Actual		Projected			Actual		Projected			Actual		Projected		
	1970	1975	1980	1985	1990	1970	1975	1980	1985	1990	1970	1975	1980	1985	1990
BOTH SEXES															
Total, 16 years and over	137,809	151,389	163,200	171,900	178,967	82,714	92,613	101,673	108,602	113,839	60.0	61.2	62.3	63.2	63.6
16 to 24 years	30,159	34,530	36,108	33,389	30,078	17,829	22,265	24,266	23,067	20,952	59.1	64.5	67.2	69.1	69.7
25 to 54 years	70,085	75,983	82,953	91,942	101,138	50,388	56,182	62,497	70,616	78,567	71.9	73.9	75.3	76.8	77.7
55 years and over	37,563	40,876	44,139	46,569	47,751	14,497	14,165	14,910	14,919	14,320	38.6	34.7	33.8	32.0	30.0
MEN															
Total, 16 years and over	64,536	71,468	77,089	81,119	84,379	51,194	55,615	60,000	62,903	65,220	79.3	77.8	77.8	77.5	77.3
16 to 19 years	7,281	8,049	8,037	6,870	6,485	4,005	4,760	4,905	4,181	3,976	55.0	59.1	61.0	60.9	61.3
16 and 17 years	3,878	4,199	4,074	3,503	3,173	1,808	2,039	2,061	1,777	1,612	46.6	48.6	50.6	50.7	50.8
18 and 19 years	3,402	3,850	3,963	3,367	3,312	2,197	2,721	2,849	2,404	2,364	64.6	70.7	71.8	71.4	71.4
20 to 24 years	6,897	8,769	9,584	9,386	8,129	5,709	7,398	8,069	7,795	6,671	82.8	84.4	84.2	83.0	82.1
25 to 34 years	11,707	14,566	17,196	18,997	19,590	11,311	13,854	16,369	18,021	18,545	96.6	95.1	95.2	94.9	94.7
35 to 44 years	10,831	10,745	12,147	14,917	17,471	10,464	10,288	11,600	14,192	16,571	96.6	95.7	95.5	95.1	94.8
45 to 54 years	11,062	11,330	10,841	10,721	12,085	10,417	10,426	9,892	9,709	10,901	94.2	92.0	91.2	90.6	90.2
55 to 64 years	8,708	9,221	9,791	10,000	9,592	7,124	6,982	7,275	7,162	6,704	81.8	75.7	74.3	71.6	69.9
55 to 59 years	4,718	4,963	5,313	5,194	4,888	4,218	4,185	4,448	4,283	3,990	89.4	84.3	83.7	82.5	81.6
60 to 64 years	3,990	4,258	4,478	4,806	4,704	2,906	2,797	2,827	2,879	2,714	72.8	65.7	63.1	59.9	57.7
65 years and over	8,047	8,784	9,492	10,228	11,027	2,164	1,906	1,890	1,843	1,852	26.9	21.7	19.9	18.0	16.8
65 to 69 years	3,061	3,497	3,734	3,942	4,236	1,278	1,108	1,125	1,104	1,125	41.8	31.7	30.1	28.0	26.6
70 years and over	4,986	5,287	5,759	6,286	6,791	886	799	765	739	727	17.8	15.1	13.3	11.8	10.7
WOMEN															
Total, 16 years and over	73,273	79,921	86,111	90,781	94,588	31,520	36,998	41,673	45,699	48,619	43.0	46.3	48.4	50.3	51.4
16 to 19 years	7,485	8,225	8,160	7,018	6,612	3,241	4,038	4,226	3,762	3,649	43.3	49.1	51.8	53.6	55.2
16 and 17 years	3,796	4,113	3,972	3,420	3,089	1,324	1,652	1,712	1,551	1,448	34.9	40.2	43.1	45.4	46.9
18 and 19 years	3,689	4,111	4,188	3,598	3,523	1,917	2,387	2,514	2,221	2,201	52.0	58.1	60.0	61.5	62.5
20 to 24 years	8,494	9,486	10,327	10,115	8,852	4,874	6,069	7,066	7,329	6,656	57.4	64.0	68.4	72.5	75.2
25 to 34 years	12,724	15,514	18,108	19,967	20,582	5,698	8,456	10,394	12,210	13,077	44.8	54.5	57.4	61.2	63.5
35 to 44 years	11,771	11,618	13,084	15,903	18,525	5,967	6,493	7,633	9,723	11,678	50.7	55.9	58.3	61.1	63.0
45 to 54 years	11,986	12,206	11,577	11,437	12,885	6,531	6,665	6,609	6,761	7,795	54.4	54.6	57.1	59.1	60.3
55 to 64 years	9,757	10,349	11,035	11,238	10,671	4,153	4,244	4,628	4,740	4,514	42.5	41.0	41.9	42.2	42.3
55 to 59 years	5,181	5,470	5,881	5,698	5,299	2,547	2,618	2,891	2,870	2,703	49.2	47.9	49.2	50.4	51.0
60 to 64 years	4,576	4,878	5,154	5,549	5,372	1,606	1,626	1,737	1,870	1,811	35.1	33.3	33.7	33.7	33.7
65 years and over	11,051	12,521	13,820	15,103	16,461	1,056	1,033	1,117	1,174	1,250	9.6	8.2	8.1	7.8	7.6
65 to 69 years	3,814	4,433	4,748	5,028	5,419	644	640	692	721	768	16.9	14.4	14.6	14.3	14.2
70 years and over	7,236	8,088	9,072	10,075	11,042	412	392	425	453	482	5.7	4.8	4.7	4.5	4.4

SOURCE: The 1970 and 1975 population are estimated from *Current Population Reports*, Series P-25, No. 614. Labor Force data for 1970 are from Special Labor Force Report 156. The 1975 labor force data are from Current Population Survey estimates. Population projections are from *Current Population Reports*, Series P-25, No. 601.

tially by extrapolating the observed trends in the labor force participation rates (percent of population in the labor force) of the various groups of working age and by then applying the results to the Bureau of the Census' projected population levels for these groups. These population estimates are not subject to much uncertainty, because they deal with persons who have already been born and who, by and large, can be counted. There is, however, a much greater element of uncertainty with regard to the future course of the labor force participation rates of the different population groups.

Changes in the youth labor force

As noted earlier, the principal reason for the projected slowdown in labor force growth during the 1980's is the sharp drop in the birth rate during the 1960's, which will result in a smaller number of youths reaching labor force age than in recent years. In fact, the youth labor force (age 16 to 24) is already growing at a slower pace. From 22.3 million in 1975, it is projected to increase by 2.0 million to 1980, a much smaller change than the 4.4-million advance between 1970 and 1975 (table 2). After 1980, the youth labor force is actually expected to decline, dropping by 1.2 million by 1985 and by a further 2.1 million, to 20.9 million, by 1990. The shrinking of the youth labor force will occur first among teenagers and then among youths age 20 to 24.

Growth of the teenage labor force is actually projected to level off by 1980, after increasing only slightly, by about 330,000, from its 1975 level. Over the 1980's, however, the number of teenagers in the labor force is expected to decrease by 1.5 million, reflecting the sharp drop in the teenage population. Because of this population decline, by 1990, teenagers will represent only 6.7 percent of the labor

Table 2. Net changes in the civilian labor force 16 years old and over, by age and sex, 1970 to 1990

Sex and age group	Net change (in thousands)				Annual average rate of change[1] (in percent)			
	1970-75	1975-80	1980-85	1985-90	1970-75	1975-80	1980-85	1985-90
BOTH SEXES								
Total, 16 years and over	9,899	9,060	6,929	5,237	2.26	1.87	1.32	0.94
16 to 24 years	4,436	2,001	−1,199	−2,115	4.44	1.72	−1.01	−1.92
16 to 19 years	1,552	333	−1,188	−318	3.88	.74	−2.79	−.82
20 to 24 years	2,884	1,695	−38	−1,797	4.82	2.37	(2)	−2.53
25 to 54 years	5,795	6,315	8,119	7,951	2.18	2.13	2.44	2.13
25 to 34 years	5,301	4,453	3,468	1,391	5.93	3.64	2.44	.90
35 to 44 years	350	2,452	4,682	4,334	.42	2.73	4.36	3.33
45 to 54 years	143	−590	−31	2,226	0.17	−.70	(2)	2.54
55 years and over	−332	745	9	−599	−0.46	1.03	(2)	−.82
55 to 64 years	−51	677	−1	−684	−0.09	1.17	(2)	−1.18
65 years and over	−281	68	10	85	−1.83	.46	.07	0.56
MEN								
Total, 16 years and over	4,421	4,385	2,903	2,317	1.66	1.52	0.94	0.72
16 to 24 years	2,444	816	−998	−1,329	4.49	1.30	−1.60	−2.35
16 to 19 years	755	145	−724	−205	3.45	.60	−3.19	−1.01
20 to 24 years	1,689	698	−301	−1,124	5.18	1.80	−.76	−3.11
25 to 54 years	2,376	3,293	4,061	4,095	1.42	1.82	2.04	1.86
55 years and over	−400	277	−160	−449	−.88	.61	−0.35	−1.02
55 to 64 years	−142	293	−113	−458	−.40	.82	−.31	−1.32
65 and over	−258	−16	−47	9	−2.54	−.17	−.50	.10
WOMEN								
Total, 16 years and over	5,478	4,675	4,026	2,920	3.20	2.38	1.84	1.24
16 to 24 years	1,992	1,185	−201	−786	4.39	2.22	−.36	−1.47
16 to 19 years	797	188	−464	−113	4.40	0.91	−2.33	−.61
20 to 24 years	1,195	997	263	−673	4.39	3.04	.73	−1.93
25 to 54 years	3,418	3,022	4,058	3,856	3.44	2.62	3.05	2.52
55 years and over	68	468	159	−150	.26	1.70	.58	−.51
55 to 64 years	91	384	112	−226	.43	1.73	0.48	−.98
65 years and over	−23	84	57	76	−.44	1.56	1.00	1.25

[1] Compounded continuously.
[2] Less than 0.05 percent.

force, a significantly smaller proportion than the 9.5 percent which they accounted for in 1975.

With large numbers of the present teenage cohorts reaching adulthood over the next few years, the labor force group age 20 to 24 should grow very rapidly until the early 1980's, at which point it, too, will begin to decline. The number of women age 20 to 24 in the labor force is projected to have the greatest growth between 1975 and 1980, increasing by about 1.0 million. It should grow a further quarter of a million during the first half of the 1980 decade, but will then recede rapidly, dropping by nearly 700,000 by 1990. The number of men age 20 to 24 years in the labor force should increase by about 700,000 during the late 1970's. It is then expected to decrease by 300,000 during the early 1980's, and by more than 1 million during the 1985–90 period.

The completion of the entry of the "baby boom" generation into the labor force over the next few years will make the overall work force younger. For example, the median age of the labor force, which already decreased from 39.6 years in 1970 to 36.0 years in 1975, is projected to drop even further—to 34.9 years by 1980. Although the number of youths in the labor force will shrink after 1980, the median age of the labor force should increase only slightly during the decade, to about 36.5 years in 1990 (table 3). This is because the baby boom cohorts will still be relatively young; the bulk of them will still be in their thirties in 1990.

The prime age labor force

The prime age labor force—composed of persons age 25 to 54—should grow much more rapidly than the other two groups over the next 15 years. It is projected to expand at an annual rate of 2.1 percent during the late 1970's, 2.4 percent in the early 1980's, and 2.1 percent thereafter. The principal factor behind this projected increase is that by 1990, all persons born in the period following World War II will be in the prime ages. A second factor is the expected continuation of the rising trend in the labor force participation of women. As a result, the proportion of the labor force accounted for by prime age workers is expected to increase from 61 percent in 1975 to 65 percent in 1985, and to about 70 percent in 1990.

As this labor force group grows, both in absolute and relative terms, the economy should have the potential for increased productivity. Also, with a much larger proportion of the work force in ages in

which the probability of unemployment is lowest, the Nation's unemployment rate should tend to be somewhat lower than in recent years, other things being equal.[2]

Furthermore, the capacity of the labor force to carry out social responsibilities should be enhanced during this period. One way of illustrating this strength is to examine the projected changes in the ratio of nonworkers to workers, generally referred to as the "economic dependency" ratio:[3]

	1975	1980	1985	1990
Dependency ratio	125.4	114.7	111.5	111.4

As shown, the average number of nonworkers for each 100 labor force members is projected to drop from about 125 in 1975 to 111 in 1990. This decline reflects essentially the absorption of the baby boom cohorts into the labor force. (Of course, as the baby boom cohorts begin to retire in large numbers during the late 1990's and early in the next century, the pendulum will begin to swing in the other direction.)

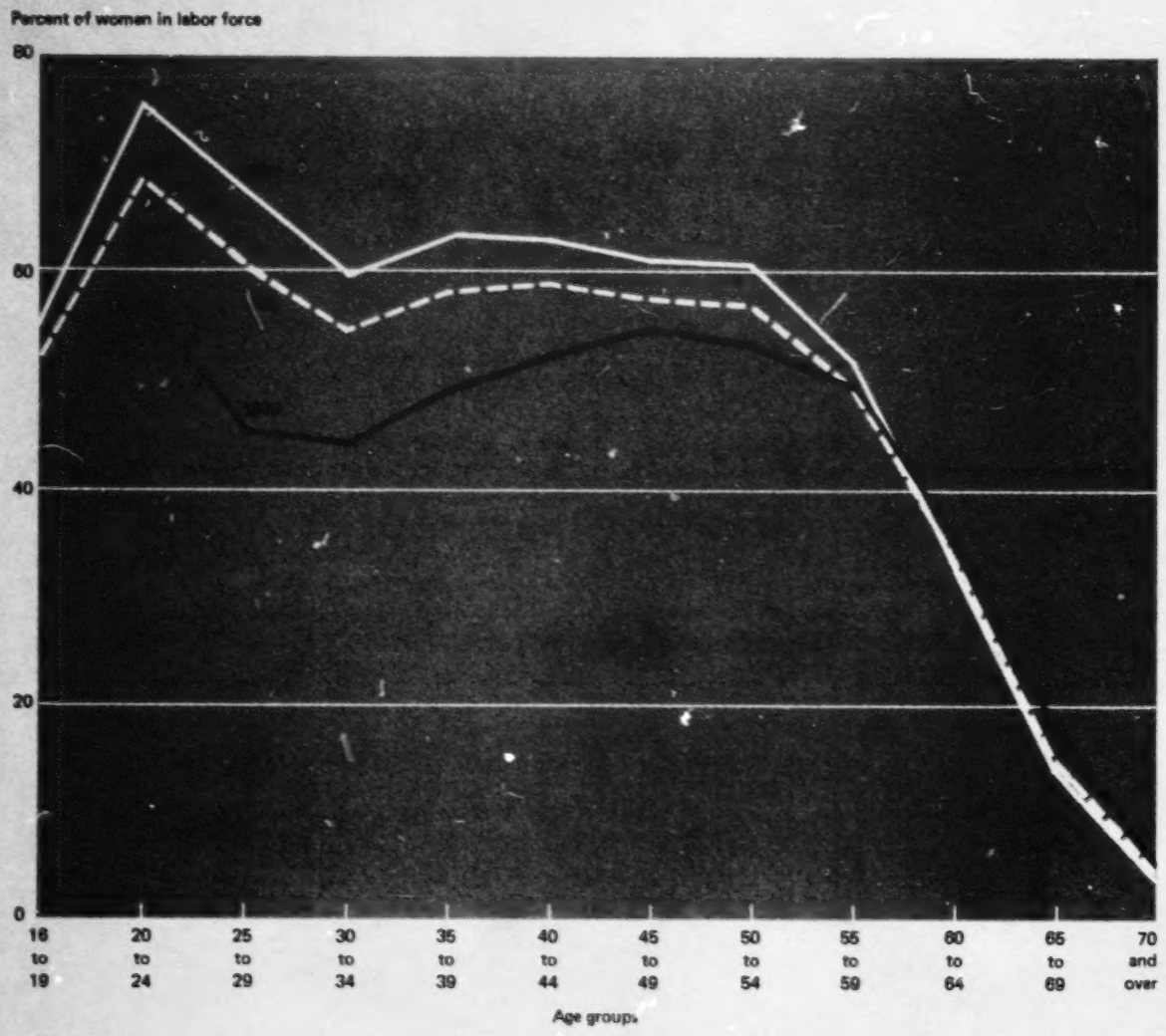
As shown both in tables 1 and 2, the projected growth of the prime age labor force between 1975 and 1990 will also be a reflection of the aging of persons born during the post-World War II baby boom. The projected growth of 6.3 million in the latter 1970's will occur mainly among persons 25 to 34 year old, and the 8.1 million growth of the early 1980's should be concentrated among 35- to 44-year-olds. This latter age group should also exhibit the most growth in the late 1980's. To the economy as a whole, the increase in the labor force of these age groups is highly favorable. However, because of the "crowding" of workers in these central age groups, the individual members of these groups are likely to encounter more competition for certain jobs, such as management positions, the number of which is generally related to the number of workers of all ages.[4]

Another important factor contributing to the growth of the labor force among workers of prime working age is the increased participation by women, particularly those of childbearing age. Historically, participation rates for women at the primary childbearing ages have been significantly lower than both those of younger and of somewhat older women. However, this difference, particularly in relation to older women, has been getting smaller and smaller. (See chart 2.) While the rising trend in

Table 3. Distribution of civilian labor force, by age and sex, actual 1970 and 1975, and projected 1980, 1985, and 1990

Sex and age group	Number (in thousands)					Percent distribution				
	Actual		Projected			Actual		Projected		
	1970	1975	1980	1985	1990	1970	1975	1980	1985	1990
BOTH SEXES										
Total, 16 years and over	82,714	92,613	101,673	108,602	113,839	100.0	100.0	100.0	100.0	100.0
16 to 24 years	17,829	22,265	24,266	23,067	20,952	21.6	24.0	23.9	21.2	18.4
16 to 19 years	7,246	8,798	9,131	7,943	7,625	8.8	9.5	9.0	7.3	6.7
20 to 24 years	10,583	13,467	15,162	15,124	13,327	12.8	14.5	14.9	13.9	11.7
25 to 54 years	50,388	56,182	62,497	70,616	78,567	60.9	60.7	61.5	65.0	69.0
25 to 34 years	17,009	22,310	26,763	30,231	31,622	20.6	24.1	26.3	27.8	27.8
35 to 44 years	16,431	16,781	19,233	23,915	28,249	19.9	18.1	18.9	22.0	24.8
45 to 54 years	16,948	17,091	16,501	16,470	18,696	20.5	18.5	16.2	15.2	16.4
55 years and over	14,497	14,165	14,910	14,919	14,320	17.5	15.3	14.7	13.7	12.6
55 to 64 years	11,277	11,226	11,903	11,902	11,218	13.6	12.1	11.7	11.0	9.9
65 years and over	3,220	2,939	3,007	3,017	3,102	3.9	3.2	3.0	2.8	2.7
Median age	39.6	36.0	34.9	35.3	36.5	.....	.....	.....	.....	.....
MEN										
Total, 16 years and over	51,194	55,615	60,000	62,903	65,220	61.9	60.1	59.0	57.9	57.3
16 to 24 years	9,714	12,158	12,974	11,976	10,647	11.7	13.1	12.8	11.0	9.4
16 to 19 years	4,005	4,760	4,905	4,181	3,976	4.8	5.1	4.8	3.8	3.5
20 to 24 years	5,709	7,398	8,069	7,795	6,671	6.9	8.0	8.0	7.2	5.9
25 to 54 years	32,192	34,568	37,861	41,922	46,017	38.9	37.3	37.2	38.6	40.4
55 years and over	9,288	8,888	9,165	9,005	8,556	11.2	9.6	9.0	8.3	7.5
55 to 64 years	7,124	6,982	7,275	7,162	6,704	8.6	7.5	7.2	6.6	5.9
65 years and over	2,164	1,906	1,890	1,843	1,852	2.6	2.1	1.9	1.7	1.6
Median age	39.6	36.7	35.5	35.9	36.9	.....	.....	.....	.....	.....
WOMEN										
Total, 16 years and over	31,520	36,998	41,673	45,699	48,619	38.1	39.9	41.0	42.1	42.7
16 to 24 years	8,115	10,107	11,292	11,091	10,305	9.8	10.9	11.1	10.2	9.1
16 to 19 years	3,241	4,038	4,226	3,762	3,649	3.9	4.4	4.2	3.5	3.2
20 to 24 years	4,874	6,069	7,066	7,329	6,656	5.9	6.6	6.9	6.7	5.8
25 to 54 years	18,196	21,614	24,636	28,694	32,550	22.0	23.3	24.2	26.4	28.6
55 years and over	5,209	5,277	5,745	5,914	5,764	6.3	5.7	5.7	5.4	5.1
55 to 64 years	4,153	4,244	4,628	4,740	4,514	5.0	4.6	4.6	4.4	4.0
65 years and over	1,056	1,033	1,117	1,174	1,250	1.3	1.1	1.1	1.1	1.1
Median age	38.5	34.9	34.1	34.6	35.7	.....	.....	.....	.....	.....

Chart 2. Civilian labor force participation rates of women, by age, 1970, 1980, and 1990



participation among women in the most active years of childbearing is attributable partly to the fact that many have either postponed the start of a family or have decided not to have children, it is also evident among those who are mothers of very young children, a group which remains large.[5]

Although the growth of the prime-age female labor force is not projected to be as great in the late 1970's as it was during the early part of this decade, it is expected to increase again during the early 1980's, when most of the baby boom cohorts will enter this age group. Altogether, the number of prime age women in the labor force is projected to rise from 21.6 million in 1975 to 32.5 million in 1990, with their proportion of the labor force increasing from 23 to 29 percent (table 3). This represents a 2.7-percent annual average rate of increase over the 1975–90 period. Despite the fact that women in prime working years make up a smaller proportion of the labor force than do prime age men, they should account for roughly half of the total labor force growth during the next 15 years.

The older labor force

In general, the number of older workers—those 55 years and over—is projected to rise somewhat in the late 1970's, remain unchanged over the early 1980's, and then decline during the late 1980's. The participation rates of men in these age groups have been declining for some time. For example, the rate of men age 55 to 64 fell from 82 to 76 percent between 1970 and 1975, and it is projected to drop to about 70 percent by 1990.[6] Rates for men 65 and over are also expected to continue their longrun decrease. However, the number of men in the labor force is still expected to increase somewhat during the late 1970's because of the continued growth of their population. During the early 1980's, there should be little change, with decreases in the number of older men in the labor force offset by increases in the number of older women, whose participation rates are expected to show little change. In the late 1980's, the number of persons age 55 and over in the labor force is projected to fall, and the 1990 level of 14.3 million should be only slightly higher than the 1975 average for this group. This is probably a short-term phenomenon which is related to a decrease in the population age 55–64, stemming from a drop in the birth rate during the great Depression of the 1930's. These population groups are expected to increase again in number after 1995.[7]

Overall, the proportion of the labor force accounted for by persons ages 55 and over should decline from 15 percent in 1975 to 13 percent in 1990. The decrease in the proportion of older workers in the labor force has several implications which are difficult to quantify. On one hand, older workers bring to the workplace experience that cannot always be obtained in school. On the other hand, the older work force has a lower proportion of highly educated workers; thus, their withdrawal will increase the educational attainment of the work force. It is, therefore, difficult to assess the impact of a smaller proportion of older workers on the productivity of the labor force. One probable effect will be to enhance promotion opportunities for younger members of the labor force; indeed, some of the current pressure for earlier retirement may be caused by the competition by younger workers for higher level jobs.

Comparison with earlier projections

In general, the present labor force projections differ significantly from those BLS published in 1973. The difference is mostly in terms of the participation rates for women, which are now expected to rise considerably more than previously projected. As a consequence, the number of women in the labor force in 1980 is expected to be 2.5 million higher than previously projected. And for 1990, the current projections for women are 5.0 million higher than those published in 1973 (table 4).

The projection for women is higher for two reasons: First, the rise in female labor force participation has intensified since the last projection was made, and thus the extrapolation yields a higher

Table 4. Comparison of current labor force projection with 1973 BLS projection,[1] 1980, 1985, and 1990

[In thousands]

Sex and age group	Civilian labor force 16 years old and over, by age and sex								
	1980			1985			1990		
	Current projection (1)	1973 projection (2)	Difference (1) - (2) (3)	Current projection (4)	1973 projection (5)	Difference (4) - (5) (6)	Current projection (7)	1973 projection (8)	Difference (7) - (8) (9)
BOTH SEXES									
Total, 16 years and over	101,673	99,809	1,864	108,602	105,716	2,886	113,839	110,576	3,263
16 to 24 years	24,266	22,582	1,684	23,067	20,985	2,082	20,952	19,120	1,832
25 to 54 years	62,497	61,146	1,351	70,616	68,404	2,212	78,567	75,623	2,944
55 years and over	14,910	16,081	−1,171	14,919	16,327	−1,408	14,320	15,833	−1,513
MEN									
Total, 16 years and over	60,000	60,630	−630	62,903	64,057	−1,154	65,220	66,947	−1,727
16 to 24 years	12,974	12,347	627	11,976	11,285	691	10,647	10,132	515
25 to 54 years	37,861	38,498	−637	41,922	42,977	−1,055	46,017	47,376	−1,359
55 years and over	9,165	9,785	−620	9,005	9,795	−790	8,556	9,439	−883
WOMEN									
Total, 16 years and over	41,673	39,179	2,494	45,699	41,659	4,040	48,619	43,629	4,990
16 to 24 years	11,292	10,235	1,057	11,091	9,700	1,391	10,305	8,988	1,317
25 to 54 years	24,636	22,648	1,988	28,694	25,427	3,267	32,550	28,247	4,303
55 years and over	5,745	6,296	−551	5,914	6,532	−618	5,764	6,394	−630

[1] Denis F. Johnston, "The U.S. labor force: projections to 1990," *Monthly Labor Review*, July 1973, pp. 3-13.

projection line. Second, the current method for making the projection does not reduce the rate of change in the rate as rapidly as did the previous methodology. In the previous set of projections there was an implicit assumption that the rate of growth of the female participation rate would eventually drop to zero and that most of the movement toward zero would occur in the late 1970's. Although the current projections are also built on the assumption that the rate of change will eventually drop to zero, we have postulated that no significant movement toward zero would occur before the mid-1980's, with most taking place during the early 1990's, after the period of the projection.

This change in assumptions reflects a change in the perception of the determinants of female labor force growth. During the late 1960's and early 1970's, as the birth rate was decreasing drastically, most of the increase in the female labor force participation rate was attributed to this factor. And since it was then assumed that the birth rate could not decrease much further—an assumption which has been met—it was expected that the spectacular growth in the labor force rate of young adult women would have to come to a quick end. In fact, the rise continued.

It is now evident that mothers of young children are increasingly likely to be in the labor force. Thus, even though the birth rate is no longer decreasing as rapidly as before, labor force participation for young women has continued to increase as strongly as in the late 1960's. Given these factors, it is difficult to project much of a decrease in the rate of growth in female labor force participation for the late 1970's.

Although the greatest difference between these projections and the previous ones is in the increased number of women in the labor force, there are some other significant changes. The projections for men of prime working age and for older men have been lowered, resulting in a labor force that is 1.3 million lower in 1980 and 2.2 million lower in 1990 than the 1973 projections. Evidence since 1972 indicates an intensification of the decline in the labor force participation of adult men.

Another large difference is in terms of the labor force for male teenagers. After decreasing over the late 1950's and early 1960's, the labor force rates for this group have since reversed and are now on the upturn; the change is most apparent for youths age 16–17. Thus, in contrast to the earlier projection, labor force participation of teenagers is projected to increase. As a consequence, the male youth labor force (age 16–24) is expected to be about 625,000 higher in 1980 than previously projected. Because of the dynamics of the baby boom, the large difference in the projections for this group is for 1985, a year for which the current projections is 700,000 larger than the previous one. Since the female labor force in this age group is also projected to be higher, the current projection implies a generally younger labor force than the previous projections.

Another significant departure from past projections is in terms of the participation rates for older women, which are generally expected to be lower than had been previously projected. As a consequence, the labor force of women age 55 and over is now projected to be 630,000 smaller in 1990 than previously projected.

The net effect of all the changes from the projection published in 1973 is to increase the civilian labor force by 1.9 million in 1980, by 2.9 million in 1985, and by 3.3 million in 1990.

Methods and assumptions

The labor force projections presented in this article are derived essentially from two sets of data: (1) data on the anticipated size and age-sex composition of the population of working age, made available by the Bureau of the Census, and (2) data on projected trends in labor force participation among the various age-sex groups in the population, which we obtained by extrapolating the observed long-term trends in the participation rates of each of these groups.

In terms of the projections of the size and age-sex composition of the population, it should be noted that the data used here cover only a 15-year period (1975–90) and are limited to persons 16 years of age and over. Thus, even the projections for 1990 are limited entirely to persons who are already born and who can be counted. The future size of the 1975 population can be projected fairly accurately by allowing for the effects of mortality and immigration. The future course of the birth rate, which is much more difficult—if not impossible—to project accurately, has only a secondary effect on the labor force projections because persons born during the projections period will not have reached labor force age by 1990. Thus, except for possible changes in mortality rates and in the net effect of immigration and emigration, there is not a large element of uncertainty with regard to these population estimates.

However, the element of uncertainty surrounding the projections of the labor force participation rates of the various population groups is much greater. In making these projections, several assumptions had to be made, the most important of which are: that there will be no drastic departure from previous trends in the propensity of the various popula-

tion groups to seek work; that the general demand situation will follow the basic trends of the post-World War II era; that there will be no major wars or great social disturbances; that legislation will not alter the conditions under which individuals choose to enter or remain out of the labor force; and finally, that there will be no substantial changes in prevailing definitions of "labor force," "employment," and "unemployment."

As already noted, the general approach used in projecting the participation rates was to extrapolate the observed long-term trend for each age-sex group. The extrapolation line was generally determined by means of a linear regression, but exceptions had to be made for some age-sex groups whose participation rates have changed trend during the recent past, as well as for those groups for whom extrapolation yielded results that seemed highly improbable. In these few cases, it was decided to either alter the rate of change judgmentally or to hold the participation rates constant. Finally, on the assumption that participation rates can neither rise nor decline forever because they must be constrained between zero and 100 percent, their rate of change was made to diminish gradually so as to reach zero in 20 years. However, as already noted and as described in detail later in this article, the new "tapering" method introduced with this round of projections does not significantly reduce the rates of change during the first 10 years of the projection period.

The projections discussed above were calculated in the same way for women as for men, that is, by dividing their population into 5-year age groups and by then extrapolating the participation rates of each age group from data for the 1955–75 period. In so doing, it is implicitly assumed that the participation rates of women of childbearing and childrearing age will follow the basic trends which they have exhibited over this 20-year period, a period in which their rates have risen considerably.

Before adopting this method, serious consideration was given to the possibility of constructing the projections for women of childbearing and childrearing age by first subdividing their population into two groups: those who, on the basis of Bureau of the Census fertility projections, might be expected to have children under age 6, and those who are not expected to have any pre-school children and thus be less hindered in any attempt to join the labor force. However, annual data by 5-year groups for these women are available only since 1970. Only through a significant amount of interpolation could it be created for prior years, and then only as far back as the mid-1960's.

After considering various options, it was decided that a more reliable set of projections for women could be constructed from the historical data for the 1955–75 period, even though it is not possible through such data to divide the female population by presence or absence of children. However, as discussed below, two alternative projections of the female labor force, which are based on differing assumptions about the future course of their fertility, were made on the basis of the shorter historical series (1964–75). These fertility assumptions are, respectively, considerably higher and lower than the "middle of the road" assumption implicit in the main body of projections.

The procedure used to construct the main projections was as follows:

Step 1. Annual average rates of labor force participation (the percent of the total population in the total labor force, including Armed Forces) were obtained for each year, 1955 through 1975, for men and women separately in the following age groups: 16–17, 18–19, and 5-year age groups thereafter to 70 and over.

Step 2. The average annual rate of change in the participation rates of each age-sex group over the 1955–75 period was estimated by means of linear regression. Using the estimated annual rates of change, projections of the labor force were made for each year from 1975 to 1990, inclusive.

Step 3. Each annual rate of change was gradually reduced so that by 1995, all changes would be zero. In order to have a smooth path that would be approximately exponential, the rate of change was made to have constant second differences. To accomplish this, the formula for sum of the integers from 1 to n was used (the sum is $n(n+1)/2$). Since the rates of change are being tapered to zero over a 20-year period, the value of n in this case was 20, and each annual rate of change was divided by 210, yielding a second term, d_2. The change then was decreased algebraically by multiplying the formula $i(i+1)/2$, where i was the number of years since 1975 times d_2; that is the change from 1980 to 1981 was the estimated rate less $15 \times d_2$. The projected labor force participation rate for a given year is thus the algebraic sum of the gradually reduced rate of change and the participation rate for the previous year. As a take-off point for the projection, the average of the labor force rates for 1973–75 was used. Example: if the annual rate of change for a given group was estimated to be 2.1 percentage points a year, and the take-off point was 30 percent, then d_2 would be 0.01. The pro-

Table 5. Effect of alternative fertility assumptions on projected civilian labor force of women 20 to 44 years old, by age, 1980, 1985, and 1990[1]

Sex and age group	1980			1985			1990		
	Alternative A	Main projection	Alternative B	Alternative A	Main projection	Alternative B	Alternative A	Main projection	Alternative B
BOTH SEXES									
Total, 16 years and over	101,094	101,673	102,191	107,669	108,602	109,301	113,760	113,839	114,593
MEN									
Total, 16 years and over	60,000	60,000	60,000	62,903	62,903	62,903	65,220	65,220	65,220
WOMEN									
Total, 16 years and over	41,094	41,673	42,191	44,766	45,699	46,398	47,540	48,619	49,373
16 to 19 years	4,226	4,226	4,226	3,762	3,762	3,762	3,649	3,649	3,649
20 to 24 years	6,859	7,066	7,212	7,116	7,329	7,477	6,482	6,656	6,775
25 to 54 years	24,264	24,636	25,008	27,974	28,694	29,245	31,645	32,550	33,185
25 to 34 years	10,049	10,394	10,736	11,549	12,210	12,704	12,257	13,077	13,631
35 to 44 years	7,606	7,633	7,663	9,664	9,723	9,780	11,593	11,678	11,759
45 to 54 years	6,609	6,609	6,609	6,761	6,761	6,761	7,795	7,795	7,795
55 years and over	5,745	5,745	5,745	5,914	5,914	5,914	5,764	5,764	5,764

[1] The Alternative A projection is based on Bureau of the Census projected birth rates for Series I, Alternative B on projected birth rates for Series III. As currently defined by the Bureau of the Census in *Current Population Reports*, Series P-25, No. 601, Series I implies an ultimate fertility rate of 2,700, that is, 1,000 women would have, on average, 2,700 births throughout their childbearing period. Series II implies a corresponding rate of 2,100 and Series III implies a rate of 1,700. The basic discussion of projections in this report is of the projections for Series II.

jected rate for 1975 would be 32.10 percent, and for 1976 it would be 34.19 percent. Because of the very low values of d_2 for the initial years of the projection period, this projection remains nearly linear from 1975 to to 1990. By 1990, this projection would be below the linear projections and after 1995 it would be constant.

Step 4. The projected labor force rate for each age-sex group was then multiplied by the corresponding population component in the Bureau of the Census projections, and the results were then aggregated, yielding the total labor force, including the Armed Forces.

Step 5. To produce estimates of the civilian labor force and of the civilian labor force participation rates, two more operations are necessary: removal from the total population of that portion which is confined to institutions, yielding a noninstitutional population, and the further removal, both from the population data and from the estimates of the total labor force, of the Armed Forces yielding a civilian noninstitutional population on one hand, and a civilian labor force on the other. Civilian labor force participation rates are then obtained by dividing the civilian labor force by the civilian noninstitutional population. In arriving at the estimates of the noninstitutional population, it was assumed that persons confined to institutions will continue to account for the same proportion of the total population in each age-sex group as in 1970.

The number of persons in the Armed Forces is projected to be 2,088,000 each year of the projection, with 1,990,000 men and 98,000 women. The distribution by age within each sex was assumed to be that of July 1974.[8]

Alternative projections of the labor force

As already noted, the projections discussed earlier and shown in tables 1 through 4 were made without taking into explicit account the possible impact on the participation rate of women of various possible future paths of their fertility. Historical annual data on which to base such projections was readily available with sufficient age detail only from 1970 on, and could be constructed through interpolation beginning with the mid-1960's, a much shorter time period than that covered by the data for all women. However, the data for the shorter time span were ultimately used in producing two alternative projections of the labor force which would take into account the possible impact on the participation rate of women of two different fertility paths. One alternative or B, is built on the assumption of a further drop in fertility, as embodied in the so-called Series III population projections of the Bureau of the Census, and the other, or A, is premised on a fairly rapid rebound in fertility, as embodied in the Bureau of the Census' Series I projections. The "main" projections, on the other hand, are based on the assumption of a "middle" course in fertility patterns, along the lines of the Bureau of the Census Series II projections of the population.[9] For 1990, for example, it is assumed under Series I that women will, on the average, have 2.7 children; under Series II they would have 2.1 children; and under Series III they would have 1.7 children.

The following process was followed in making the alternative A and B projections. First, the projected female population in each 5-year age group from 20 to 44 was subdivided into two separate categories according to the presence or absence of preschool children. This was done separately for each of the Bureau of the Census projected fertility paths, that is for Series I, II, and III.[10]

The second step was to obtain participation rates for these groups which, when applied to Series II, would be consistent with those implicit in the main projections. This process, which had only a very small impact on aggregate labor force levels (the net impact on the 1990 totals being only on the order of 150,000), was carried out as follows: (1) participation rates for women with and without children in each age group were extrapolated from the observed trends for the 1970-75 period; (2) these rates were then applied to the separate Series II population levels for women with and women without children to obtain their labor force levels; (3) these labor force levels were then aggregated to a female total for each 5-year age group; (4) the percent difference between these aggregations and the numbers for the same age groups in the "main" projections was then used to adjust (increase or decrease) the separate labor force levels for women with and without children; (5) these adjusted labor force levels were then divided by the Series II projected population of women with and without children, yielding "adjusted" participation rates for these groups which are consistent with those in the main projections. These adjusted rates were then multiplied by the different population levels for women with and without young children embodied in Series I and Series III census projections, yielding new labor force levels.

The labor force projections for women age 20 to 44 under the main projection and the two alternate projections are shown in table 5. As shown, should the fertility of U.S. women follow the lower course, (alternative B) rather than that implicit in the main projection, the labor force would have 518,000 more workers in 1980, and more than 750,000 in 1990. The increase would be concentrated among women 25 to 34 years of age. Not only would the number of women in the labor force increase under this assumption, but the reduced interruptions in their labor force careers would imply less loss of skills while not working and would yield a more productive and better paid labor force. The alternative A labor force projection, which is based on the higher fertility assumption, would result in a lower labor force projection, since more women would have interrupted careers, or longer interruptions, or both. Thus, the alternative A labor force would be 580,000 smaller in 1980 and 1.1 million smaller in 1990 than is the case with the main projection. □

FOOTNOTES

[1] The "baby boom cohort" is defined as those persons born from the late 1940's to the early 1960's, a period which encompasses the peak year of births, 1961.

[2] Moreover, the official unemployment rate should be more similar to Perry's weighted unemployment rate because of the larger proportion of the labor force composed of prime age workers. See George L. Perry, "Changing Labor Markets and Inflation," *Brookings Papers on Economic Activity*, 1970: 3, pp. 411–41.

[3] There is no standard definition of the "economic dependency" ratio. In this case, it is defined as all persons not in the labor force (including all those less than 16 years old) divided by the total in the labor force. See Henry S. Shryock, Jacob S. Siegel, and others, *The Methods and Materials of Demography* (Bureau of the Census, 1973), p. 235.

[4] For a recent exposition of the concept that the baby boom cohorts will experience difficulties at each stage of their life cycle, see Denis F. Johnston, "The Aging of the Baby Boom Cohorts," *Statistical Reporter*, March 1976, pp. 161–65.

[5] For further discussion of recent trends in female labor force participation, see three articles on the labor force in the November 1975 *Monthly Labor Review*: Allyson Sherman Grossman, "Women in the labor force: the early years," pp. 3–9; Deborah Pisetzner Klein, "Women in the labor force: the middle years," pp. 10–16; Beverly Johnson McEaddy, "Women in the labor force: the later years," pp. 17–24.

[6] For discussion of the decline in men's labor force participation rates and related topics, see Paul O. Flaim, "Discouraged workers and changes in employment," *Monthly Labor Review*, March 1973, pp. 8–16; Robert L. Stein, "Reasons for Nonparticipation in the Labor Force," *Monthly Labor Review*, July 1967, pp. 22–27; Joseph L. Gastwirth, "On the decline of male labor force participation," *Monthly Labor Review*, November 1973, pp. 53–54; and William V. Deutermann, Jr., "Declining Labor Force Participation of Prime Age Men," (Bureau of Labor Statistics, 1976), unpublished.

[7] Jacob S. Siegel, *Demographic Aspects of Aging and the Older Population in the United States, Current Population Reports: Special Studies*: Series P-23, No. 59 (Bureau of the Census, 1976).

[8] *Current Population Reports*, Series P-25, No. 529.

[9] *Current Population Reports*, Series P-25, No. 601, table A-5.

[10] Detailed information on the process used to subdivide the female population in line with these fertility assumptions may be obtained from the authors upon request.

Appendix

This report contains, in addition to the article from the December 1976 issue of the Monthly Labor Review, the following material:

Page

Supplementary table:

Noninstutitional population, total labor force and labor force participation rates by age and sex, actual 1970 and 1975 and projected 1980 to 1990..... A-2

Noninstitutional population, total labor force, and labor force participation rates by age and sex, actual 1970 and projected 1980, 1985, and 1990

[Numbers in thousands]

Age and sex	Total noninstitutional population, July 1					Total labor force, annual averages					Labor force participation rate				
	Actual		Projected			Actual		Projected			Actual		Projected		
BOTH SEXES	1970	1975	1980	1985	1990	1970	1975	1980	1985	1990	1970	1975	1980	1985	1990
Total, 16 *.....	140,996	153,574	165,286	173,986	181,053	85,902	94,798	103,759	110,688	115,925	60.9	61.7	62.8	63.6	64.0
16 - 24.....	32,246	35,752	37,295	34,576	31,265	19,916	23,488	25,453	24,254	22,139	61.8	65.7	68.2	70.1	70.8
25 - 54.....	71,182	76,943	83,852	92,841	102,037	51,486	57,142	63,396	71,515	79,466	72.3	74.3	75.6	77.0	77.9
55 and over..	37,566	40,878	44,139	46,569	47,751	14,500	14,168	14,910	14,919	14,320	38.6	34.7	33.8	32.0	30.0
MEN															
Total, 16 *.....	67,686	73,564	79,077	83,107	86,367	54,343	57,712	61,988	64,891	67,204	80.3	78.5	78.4	78.1	77.8
16 - 24.....	16,230	17,974	18,735	17,373	15,731	11,773	13,313	14,091	13,093	11,764	72.5	74.1	75.2	75.4	74.8
16 - 19...	7,671	8,416	8,371	7,204	6,819	4,395	5,127	5,239	4,515	4,310	57.3	60.9	62.6	62.7	63.2
16 - 17	3,910	4,237	4,109	3,538	3,268	1,840	2,077	2,096	1,812	1,647	47.0	49.0	51.0	51.2	51.3
18 - 19	3,760	4,179	4,262	3,666	3,611	2,555	3,050	3,143	2,703	2,663	67.9	73.0	73.7	73.7	73.7
20 - 24...	8,560	9,557	10,367	10,169	8,912	7,378	8,186	8,852	8,578	7,454	86.1	85.7	85.4	84.4	83.6
25 - 54.....	36,686	37,581	41,055	48,506	50,017	33,279	35,507	38,732	42,793	46,888	95.9	94.5	94.3	94.0	93.7
25 - 34...	12,370	15,172	17,752	19,553	20,146	11,974	14,460	16,925	18,577	19,101	96.8	95.3	95.3	95.0	94.8
25 - 29	6,731	8,330	9,307	10,103	9,907	6,509	7,881	8,787	9,499	9,287	96.7	94.6	94.4	94.0	93.7
30 - 34	5,639	6,842	8,445	9,450	10,239	5,465	6,579	8,138	9,078	9,814	96.9	96.2	96.4	96.1	95.8
35 - 44...	11,185	11,040	12,425	15,195	17,749	10,818	10,583	11,878	14,470	16,849	96.7	95.9	95.6	95.2	94.9
35 - 39	5,406	5,618	6,795	8,383	9,388	5,259	5,414	6,529	8,041	8,956	97.3	96.4	96.2	95.9	95.7
40 - 44	5,779	5,421	5,630	6,812	8,391	5,559	5,169	5,340	6,429	7,893	96.2	95.3	94.8	94.4	94.1
45 - 54...	11,132	11,368	10,878	10,758	12,122	10,487	10,464	9,929	9,746	10,938	94.2	92.0	91.3	90.6	90.2
45 - 49	5,812	5,668	5,321	5,530	6,685	5,577	5,329	4,963	5,124	6,166	96.0	94.0	93.3	92.7	92.2
50 - 54	5,320	5,700	5,557	5,228	5,437	4,910	5,135	4,966	4,622	4,772	92.3	90.1	89.4	88.4	87.8
55 and over..	16,758	18,009	19,284	20,228	20,619	9,291	8,892	9,165	9,005	8,525	55.4	49.4	47.5	44.5	41.5
55 - 64...	8,711	9,224	9,791	10,000	9,592	7,127	6,985	7,275	7,162	6,784	81.8	75.7	74.3	71.6	69.9
55 - 59	4,721	4,965	5,313	5,194	4,888	4,221	4,187	4,448	4,283	3,990	89.4	84.3	83.7	82.5	81.6
60 - 64	3,990	4,259	4,478	4,806	4,704	2,906	2,798	2,827	2,879	2,794	72.8	65.7	63.1	59.9	57.7
65 *.....	8,047	8,784	9,493	10,228	11,027	2,164	1,907	1,890	1,843	1,852	26.9	21.7	19.9	18.0	16.8
65 - 69	3,061	3,497	3,734	3,942	4,236	1,278	1,108	1,125	1,104	1,128	41.8	31.7	30.1	28.0	26.6
70 *...	4,986	5,287	5,759	6,286	6,791	886	799	765	739	727	17.8	15.1	13.3	11.8	10.7
WOMEN															
Total, 16 *.....	73,310	80,009	86,209	90,879	94,686	31,559	37,086	41,771	45,797	48,717	43.0	46.4	48.5	50.4	51.5
16 - 24.....	16,008	17,778	18,557	17,203	15,534	8,143	10,175	11,362	11,161	10,375	50.9	57.2	61.2	64.9	66.8
16 - 19...	7,494	8,245	8,180	7,038	6,632	3,250	4,059	4,246	3,782	3,669	43.4	49.2	51.9	53.7	55.3
16 - 17	3,796	4,113	3,972	3,420	3,089	1,324	1,652	1,712	1,551	1,448	34.9	40.2	43.1	45.4	46.9
18 - 19	3,698	4,131	4,208	3,618	3,543	1,926	2,407	2,534	2,231	2,221	52.1	58.3	60.2	61.7	62.7
20 - 24...	8,513	9,533	10,377	10,165	8,902	4,893	6,116	7,116	7,379	6,706	57.5	64.2	68.6	72.6	75.3
25 - 54.....	36,494	39,361	42,757	47,335	52,020	18,207	21,635	24,664	28,722	32,578	49.9	55.0	57.6	60.7	62.6
25 - 34...	12,730	15,531	18,131	19,990	20,605	5,704	8,473	10,417	12,233	13,100	44.8	54.6	57.5	61.2	63.6
25 - 29	6,885	8,480	9,480	10,310	10,097	3,118	4,838	5,728	6,667	6,822	45.3	57.1	60.4	64.7	67.6
30 - 34	5,845	7,051	8,651	9,680	10,508	2,586	3,635	4,689	5,566	6,278	44.2	51.6	54.2	57.5	59.7
35 - 44...	11,774	11,621	13,089	15,908	18,530	5,970	6,495	7,638	9,728	11,683	50.7	55.9	58.4	61.2	63.0
35 - 39	5,656	5,929	7,129	8,740	9,755	2,789	3,256	4,137	5,343	6,170	48.8	54.9	58.0	61.1	63.2
40 - 44	6,118	5,691	5,960	7,168	8,775	3,211	3,239	3,501	4,385	5,513	52.5	56.9	58.7	61.2	62.8
45 - 54...	11,988	12,207	11,577	11,437	12,885	6,533	6,667	6,609	6,761	7,795	54.5	54.6	57.1	59.1	60.5
45 - 49	6,240	6,028	5,607	5,876	7,059	3,453	3,372	3,229	3,491	4,282	55.3	55.9	57.6	59.4	60.7
50 - 54	5,747	6,179	5,970	5,561	5,826	3,080	3,295	3,380	3,270	3,513	53.6	53.3	56.6	58.8	60.3
55 and over..	20,807	22,869	24,855	26,341	27,132	5,209	5,276	5,745	5,914	5,764	25.0	23.1	23.1	22.5	21.2
55 - 64...	9,757	10,349	11,035	11,238	10,671	4,153	4,244	4,628	4,740	4,514	42.6	41.0	41.9	42.2	42.3
55 - 59	5,180	5,470	5,881	5,689	5,299	2,547	2,618	2,891	2,870	2,703	49.2	47.9	49.2	50.4	51.0
60 - 64	4,576	4,878	5,154	5,549	5,372	1,606	1,626	1,737	1,870	1,811	35.1	33.3	33.7	33.7	33.7
65 *.....	11,050	12,520	13,820	15,103	16,461	1,056	1,032	1,117	1,174	1,250	9.6	8.2	8.1	7.8	7.6
65 - 69	3,814	4,432	4,748	5,028	5,419	644	640	692	721	766	16.9	14.4	14.6	14.3	14.2
70 *...	7,236	8,087	9,072	10,075	11,042	412	392	425	453	482	5.7	4.8	4.7	4.5	4.4

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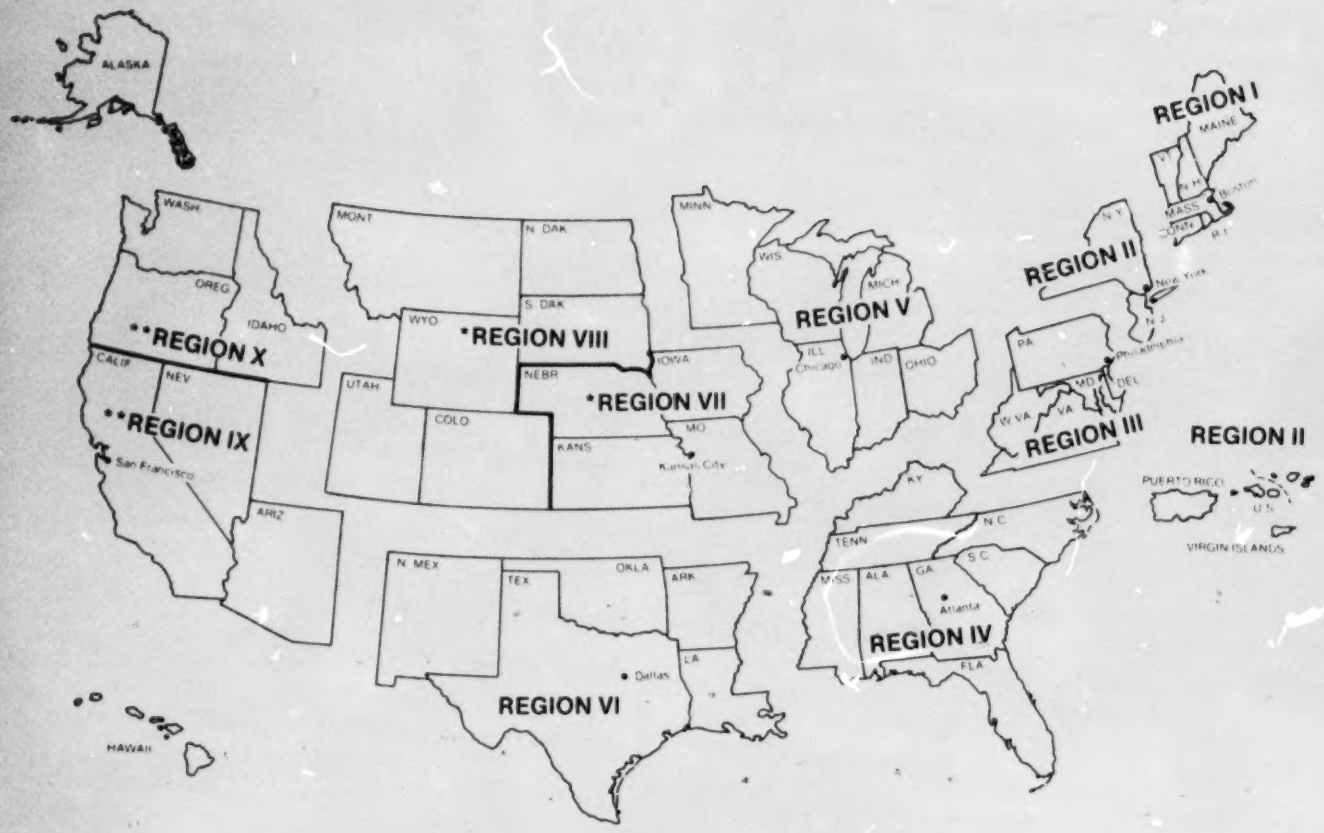

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